

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
4 November 2004 (04.11.2004)

PCT

(10) International Publication Number
WO 2004/093707 A3

(51) International Patent Classification⁷: **A61C 8/00**

(21) International Application Number:
PCT/US2004/010567

(22) International Filing Date: 5 April 2004 (05.04.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/464,958 23 April 2003 (23.04.2003) US
60/532,385 26 December 2003 (26.12.2003) US

(71) Applicants and

(72) Inventors: **BULARD, Ronald, A.** [US/US]; 2405 Oak Hollow W.W., Ardmore, OK 73401 (US). **HADWIN, Stephen, J.** [US/US]; 1606 Rosedale Street, Ardmore, OK 73401 (US).

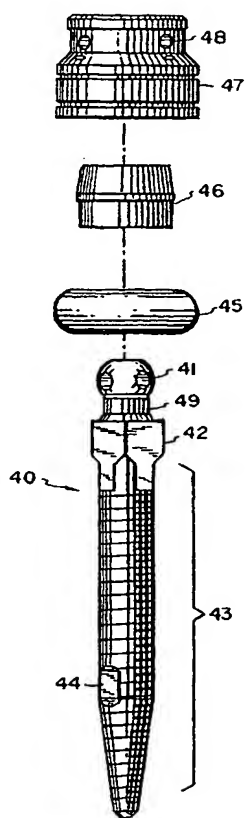
(74) Agent: **BRISCOE, Kurt, G.**; Norris McLaughlin & Marcus, P.A., 875 Third Avenue, 18Th Floor, New York, NY 10022 (US).

(81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR,

[Continued on next page]

(54) Title: ONE PIECE DENTAL IMPLANT AND USE THEREOF IN PROSTODONTIC AND ORTHODONTIC APPLICATIONS



(57) Abstract: The specification describes one-piece dental implants (40) comprising a threaded shaft (43), optionally a non-circular abutment (42) and a head (41) having a shape which is capable of accepting a keeper cap or an O-ring, or which is capable of accepting and retaining a dental wire. The implants (40) have dimensions that permit their use in a non-surgical method of insertion into bone, and are useful in both prosthodontic and orthodontic applications.

WO 2004/093707 A3